



Texas Risk Factor Report

Behavioral Risk Factor Surveillance System

Texas Department of Health

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ORAL CANCER RISK BEHAVIORS 1995-1996 Survey Data

Highlights of this Issue

- * **About 4.5 million (33%) Texas adults report at least one risk behavior for oral cancer.** Risks assessed in 1995 and 1996 included cigarette smoking, smokeless tobacco use, and risky alcohol behaviors.
- * **It is estimated that one million Texans with at least one oral cancer risk behavior had no dental or routine medical visit in the past year.** Dental and medical visits provide important opportunities for early detection of oral cancers.
- * **Over 900 thousand Texans are estimated to have combined smoking and risky drinking behaviors.** These behaviors in combination represent the greatest behavioral risk factor for developing oral cancer.

Introduction: Tobacco, alcohol and their combined use are major behavioral risk factors for developing oral and pharyngeal cancers (referred to collectively as oral cancer in this report).^{*} Smokers are 3 to 13 times more likely to develop oral cancer than non smokers and the risk tends to rise with the amount of tobacco smoked.¹ Smoking cessation, however, sharply reduces these risks.² Smokeless tobacco (ST) also called spit tobacco, chew or snuff, is not a safe alternative to smoking. The risk of developing oral cancer for ST users ranges from 2 to 11 times that of nonusers.^{2,4} Alcohol also presents a risk for oral cancer. After accounting for the risks from smoking, those who drink 15-29 alcoholic beverages per week have about 6 times the risk of developing oral cancer than nondrinkers. Combine smoking and drinking and the risk multiplies: those who combine heavy smoking and heavy drinking have up to 35 times the risk of developing oral cancer of nonsmoker, nondrinkers.²

Older adults are at higher risk for developing oral cancer than their younger counterparts, and this may be attributed to longer exposure to carcinogens. The average age at diagnosis is 60 years, with about 95% of oral cancer striking those over 40 years of age.⁵ Although oral cancer patients are predominantly men, women may be increasing their risk. A Connecticut study found that the male to female ratio for oral cancer

has decreased from 5:1 to about 2:1 since 1950, and may be attributed to an increase in smoking and alcohol use among women.⁶ National cancer incidence data show that African American males have the highest incidence of oral cancer, followed by white then Hispanic males.^{7,8} Additionally, among women, white females have the highest incidence, followed by African American and Hispanic females.

Oral Cancer Risk Behaviors

- **Tobacco use • Alcohol use**
- **Combined alcohol and tobacco use**

Only half of oral cancer patients are alive five years after diagnosis, and the death rates are higher in low income, low educated, under-insured persons, minorities and the elderly.⁷⁻⁹ This may be attributed to late detection, which allows considerable growth of the cancer. Early diagnosis, however, dramatically improves survival: five-year survival rates for early detected oral cancers are about 76%, compared to 18% for advanced, late detected cases.¹¹ Routine mouth examinations provide valuable opportunities for early detection. Though traditionally considered the responsibility of dentists, all clinical health care providers are encouraged to provide oral cancer examinations during routine check-ups.¹²

* Other behaviors also may contribute to oral cancer risks, however data were not available to adequately explore these risk factors.

Methods: The Texas Behavioral Risk Factor Surveillance System (BRFSS) is a monthly telephone survey sponsored by the Texas Department of Health, Bureau of Chronic Disease Prevention and Control. Non-institutionalized adult Texas residents with a telephone were interviewed by the University of Texas' Office of Survey Research using a truncated list-assisted sample design for random digit dialing.

Information about alcohol use was collected in 1995 and smokeless tobacco use was assessed in 1996, while smoking behavior was collected during both years. Current smokers were defined as those who ever smoked 100 cigarettes and now smoke every day or most days. Heavy smokers were defined as those who smoke ≥ 25 cigarettes/day. Smokeless tobacco users were defined as those who currently use smokeless tobacco products. Risky alcohol behavior was defined as having ≥ 60 alcoholic beverages in the past month, and/or ≥ 5 drinks on a single occasion in the past 30 days. Heavy smoking/alcohol users were defined as those who reported smoking ≥ 25 cigarettes/day and having risky alcohol behavior.

Statistical analyses were performed using SUDAAN¹² and EpiInfo version 6.¹³ Data were weighted to reflect the age, sex, and race distribution of Texas as well as the probability of being drawn into the sample. Weighting ensures that each respondent effectively represents a specific number of Texas residents within his or her given socio-demographic group. This method of analysis allows the results of the survey to be generalized to the population represented in the sample frame.

Results:

*** Smoking:** The 1996 Texas BRFSS data indicate that 23% of Texans were current smokers and that 19% of those were heavy smokers. Among 35-44 year olds and 45-54 year olds, about 26% reported were current smokers. (Figure 1) Males were significantly more likely to report smoking than females, with 28% of males versus 19% of females currently smoking ($p < .05$). Smoking prevalence was 18% for Hispanics, 25% for African Americans, and 25% for whites. These differences did not reach statistical significance, perhaps due to the small numbers in each of the race/ethnic subgroups. For more about smoking in Texas, see *Texas Risk Factor Report, Vol3, No2, Tobacco Use*.

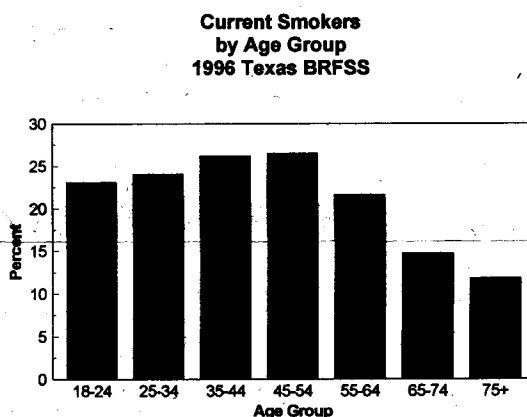


Figure 1

Did you know....?

- * About 75% of oral cancers hit smokers who drink heavily.
- * Oral cancer incidence peaks in persons aged 65-74, and 10 years earlier in African Americans.
- * A mouth examination for oral cancer takes only 2-5 minutes to complete.

* **Smokeless Tobacco (ST):** These data were collected during the 1996 survey year. The largest proportion of ST users were 25-34 year old men. (Figure 2) Only 0.4% of Texas women report its use compared to 8% of men. Of white men, 11% reported current smokeless tobacco use compared to 5% of Hispanic men, however, this difference was not statistically significant. No African Americans in our sample reported ST use.

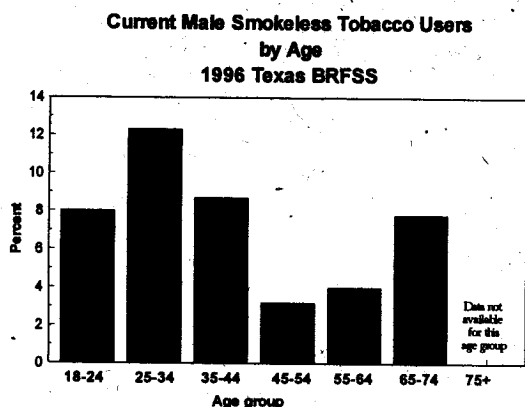


Figure 2

The bulk of ST use was reported by those men in the lowest and highest income strata. (Figure 3) Though this finding did not reach statistical significance, it may suggest a rising trend in ST use among those in higher income groups. While 73% of male ST users reported using only smokeless tobacco, 27% reported combining ST use with smoking.

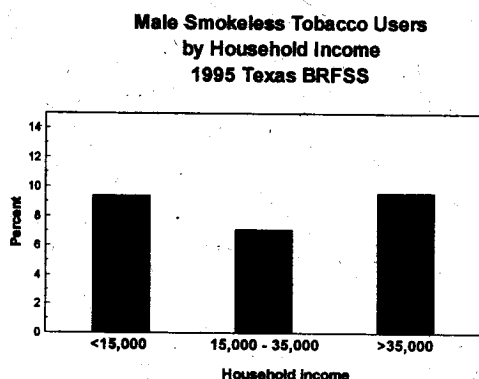


Figure 3

* **Alcohol use:** In 1995, 16% of Texans reported risky drinking behaviors, with 24% of males and 9% of females comprising this high risk group. Of Hispanics, 22% reported risky drinking behavior, while 15% of whites and 13% of African Americans reported similar risk. Hispanics had a significantly higher prevalence of risky drinking behavior than did whites ($p < .05$). Risky drinking behavior showed an inverse relationship with age. (Figure 4)

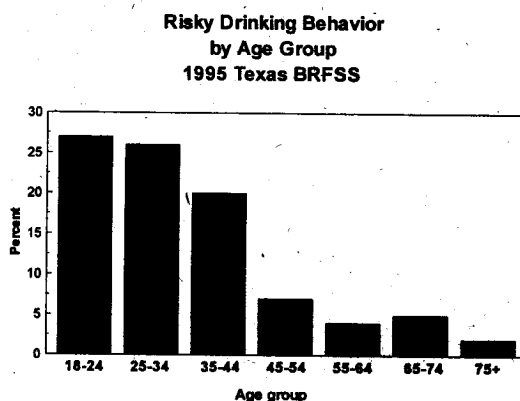


Figure 4

* **Smoking and Drinking:** Data from the 1995 BRFSS indicate that overall 7% of Texans both smoke and drink alcohol, while Texans aged less than 45 most often report these risk behaviors in combination. (Figure 5) Ten percent of males and 4% of females reported combined smoking and risky drinking behaviors. Additionally, 7% of whites, 9% of Hispanics, and 6% of African Americans reported this combination of risk behaviors, however these differences did not reach statistical significance.

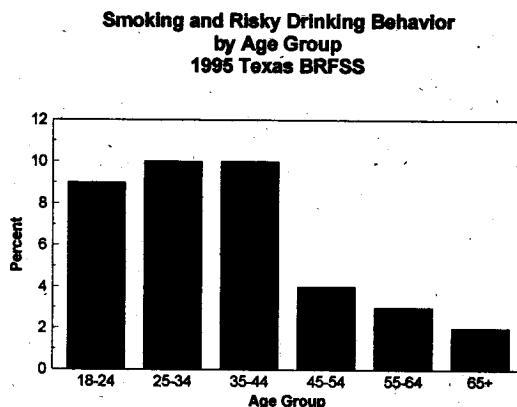


Figure 5

Dental and Medical Care Utilization

*** Smokers:** Of 1996 current smokers, 42% reported not having a dental visit during the past year and 41% reported no routine medical visit. Twenty percent of smokers reported seeing neither health care provider in the past year compared to 13% of nonsmokers. (Figure 6) Of those who reported heavy smoking, 32% reported no dental or routine medical visit in the past year. Among male smokers, there were no significant differences in recent health care utilization by race/ethnicity.

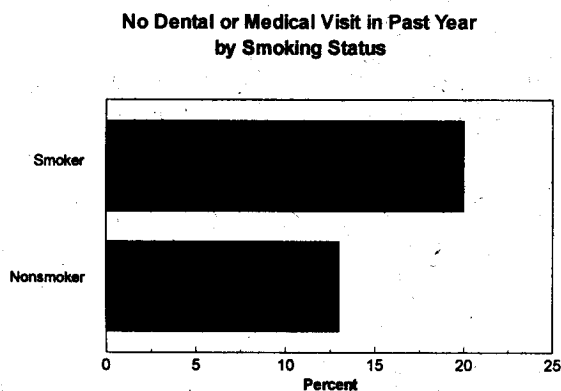


Figure 6

*** Smokeless Tobacco Users:** Of male ST users surveyed in 1996, 48% did not have a dental visit and 46% did not have a routine medical visit in the past year. (Figure 7) However, 23% percent indicated seeing neither a dentist nor physician compared to 17% of nonusers reporting the same. Seventeen percent of male smokeless tobacco users reported their last dental or medical visit was 2 or more years ago. (Table 1)

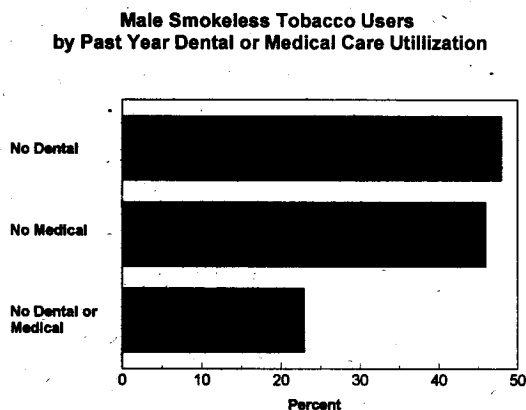


Figure 7

*** Alcohol Use:** In 1995, of those reporting risky drinking behaviors, 23% reported no dental or routine medical visit during the past year, 13% of those not at risk reported the same ($p < .05$). Additionally, 11% of those at risk reported no dental or medical visit in 2 or more years, compared to 6% of those not at risk ($p = .056$). (Table 1)

*** Combined Smoking and Drinking:** Fifty-one percent of smoker/risky drinkers reported no routine medical visit during the past year, and 48% reported no dental visit. (Figure 8) Additionally, 27% of smoker/risky drinkers reported seeing neither a dentist nor physician compared to 13% of those who did not report these behaviors in combination ($p < .05$). Additionally, 52% of heavy smoker/drinkers saw neither a dentist nor a physician in the past year.

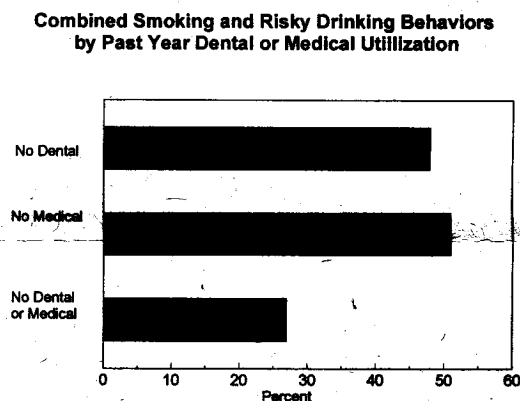


Figure 8

**Dental and medical care utilization:
Smokers and Male Smokeless Tobacco Users
1996 and 1995 Texas BRFSS**

	S 1996	STm 1996	D 1995	S/D 1995
No dental visit past year	.42	.48	.41	.48
No medical visit past year	.41	.46	.43	.51
No dent or med visit past year	.20	.23	.23	.27
No dent or med visit 2+ years	.12	.17	.25	.18

S: smoker STm: male smokeless tobacco user
D: alcohol drinker S/D: combined smoking and alcohol use

Table 1

Conclusions:

- * Thirty-two percent of heavy smokers reported no past year dental or routine medical visit where they might have received oral cancer preventive services.
- * Although typical ST users are described as young white or American Indian/Alaska Native males of low socioeconomic status from the South or rural areas, ST use may be rising among higher income Texans.
- * Smokeless tobacco users were more likely than nonusers to report no past year dental or routine medical visits that may have provided an oral cancer examination.
- * Risky drinking behavior showed an inverse relationship with age. Twenty-five to 44 year old Texans most often reported combining risky drinking behaviors with smoking.
- * Texas respondents who reported combined smoking and risky drinking behaviors reported in smaller proportions a routine medical or dental visit during the past year than those who did not report this combined behavior.
- * Over half of those who combined heavy smoking with risky drinking behaviors reported no past year dental or routine medical utilization where that may have received an examination to oral cancer.

Recommendations:

- * Public awareness and education efforts should be increased with emphasis on the oral cancer risks associated with tobacco and alcohol use. Although oral cancer typically strikes older adults, interventions targeting younger persons may discourage long-term alcohol and tobacco exposure.
- * Increased efforts should be made to encourage those at risk for developing oral cancer to visit a health care provider yearly and receive an oral cancer examination.
- * Health professions education curricula should include oral cancer education and intraoral examination techniques.
- * Clinical health care professionals should assess oral cancer risk behaviors for their patients and provide oral cavity examinations as recommended. The *Clinician's Guide to Preventive Services, Put Prevention Into Practice*, provides guidelines and instructions for oral cavity examinations.

Early detection dramatically improves the chance of survival from oral cancer. The US Public Health Service and US Preventive Services Task Force recommend early diagnosis for reducing oral cancer deaths. Similarly, the year 2000 national health objectives aim to increase the numbers of adults who receive yearly oral examinations from primary care providers.^{15,16}

If you believe you are at risk for oral cancer, ask for an oral cancer check during your next dental or medical visit.

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Additional information about oral cancer is available from:

American Cancer Society
1-800-4 CANCER
1-800-422-6237
National Cancer Institute
(301) 496-5583

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